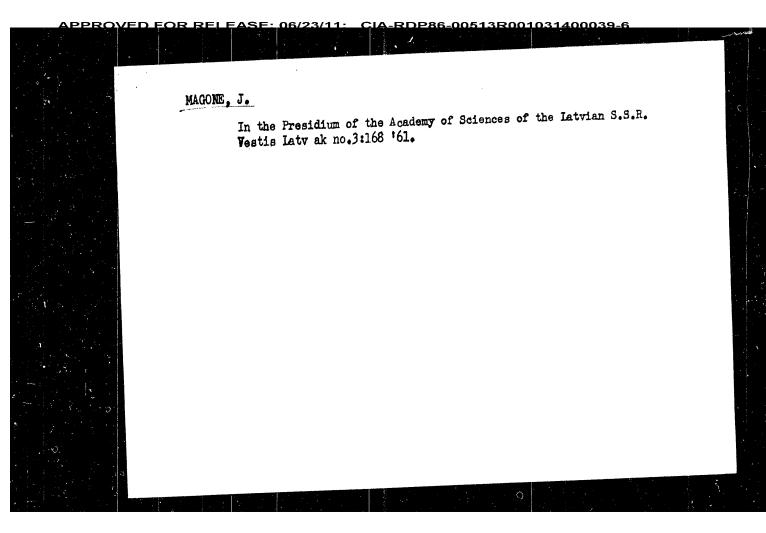
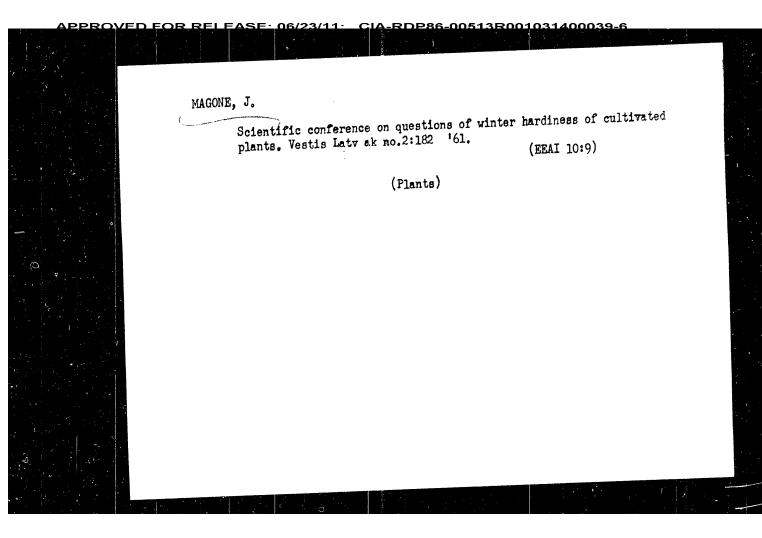
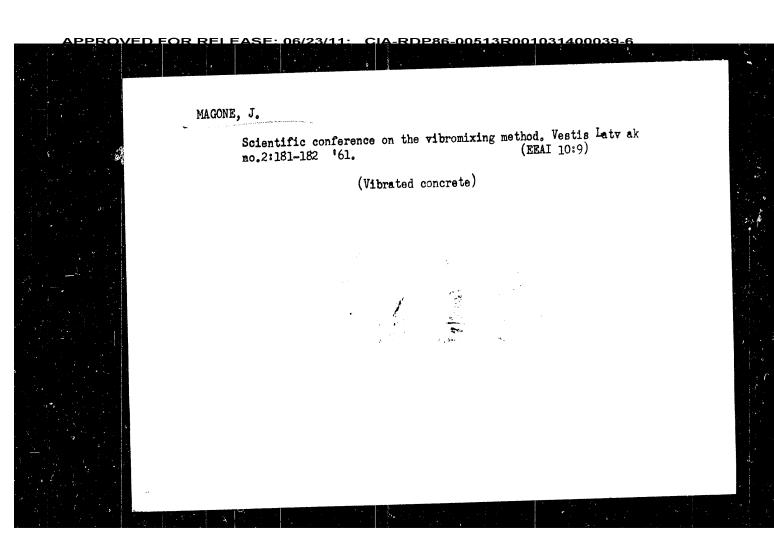


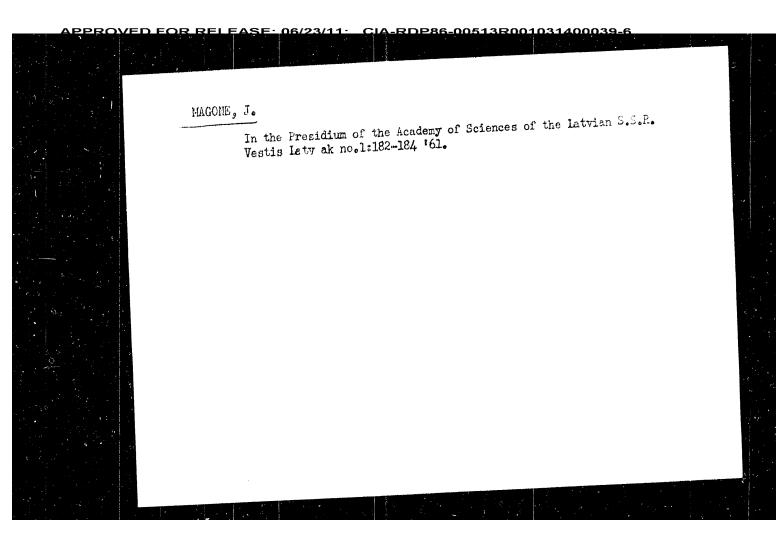
MAGONE, Ya. [Magone, J.] General meeting of the Academy of Sciences of the Latvian SSR in 1961. Vestis Latv ak no.4:153-156 '61. (EEAI 10:9) (Academy of Sciences of the Latvian S.S.R.)

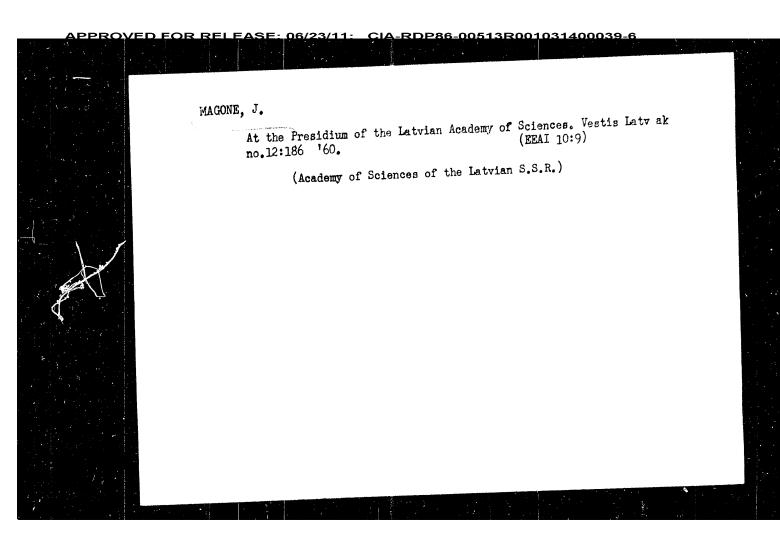


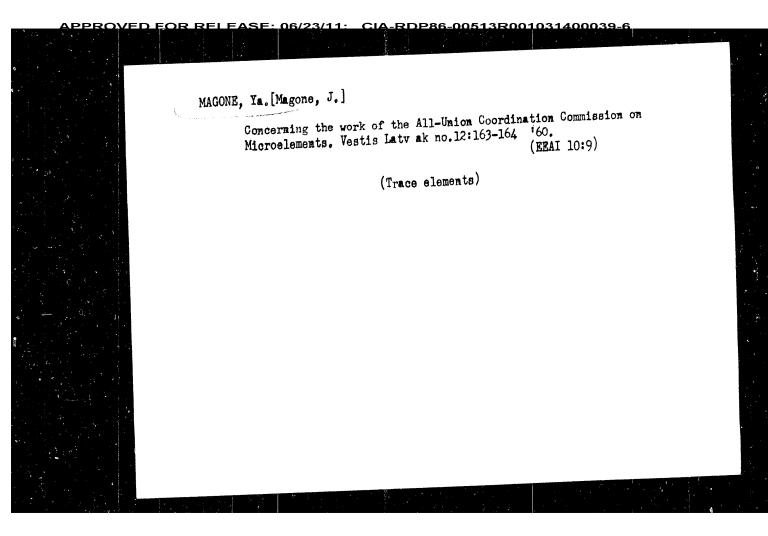


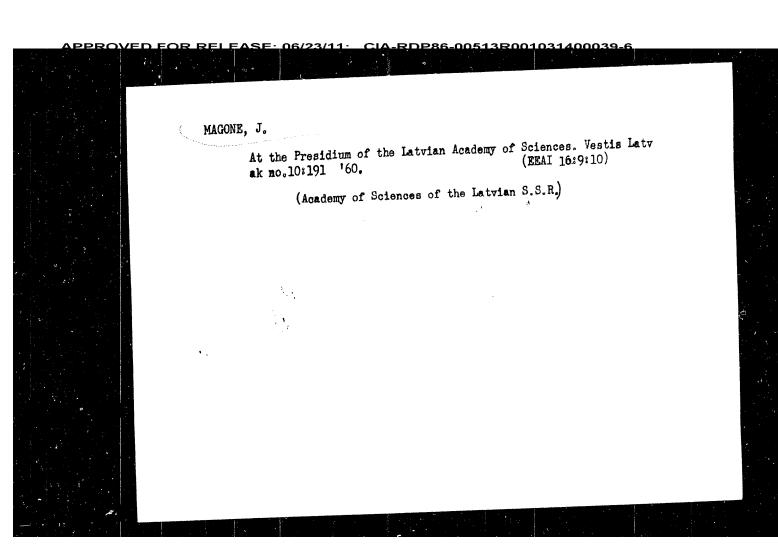


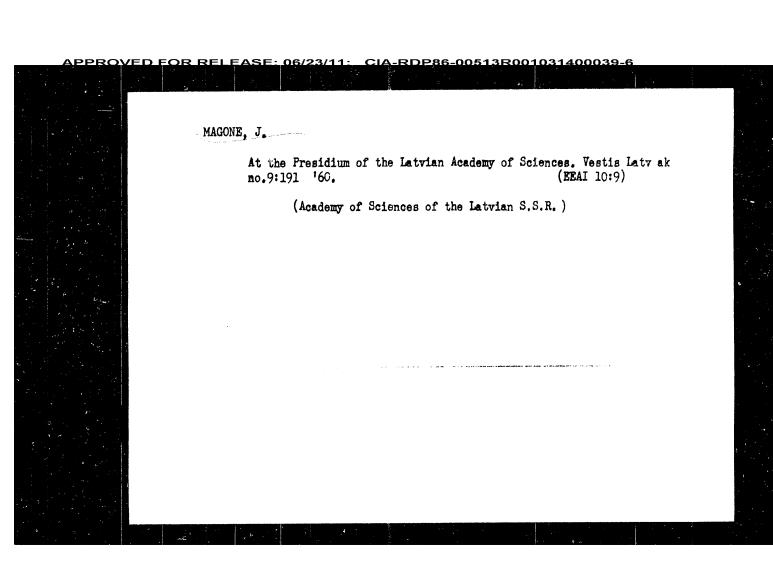
MAGONE, J. Sessions and conferences of the Academy of Sciences of the Latvian S.S.R. in 1960. Vestis Latv ak no.2:179-181 \*61.



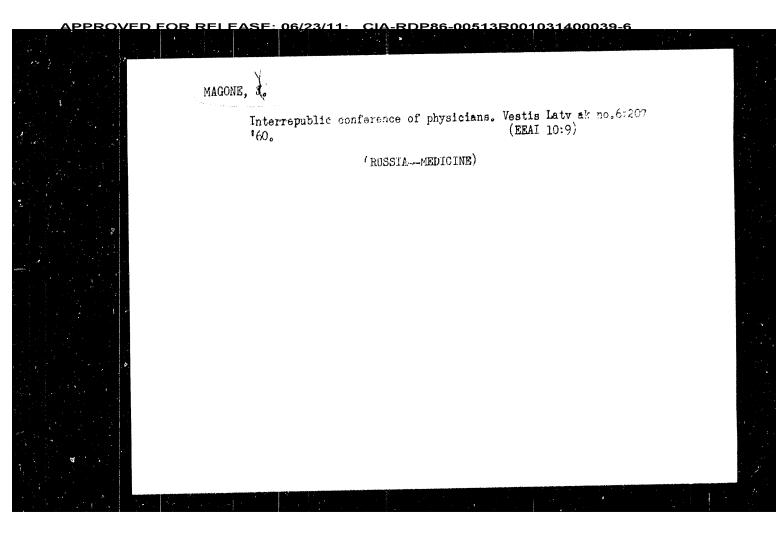


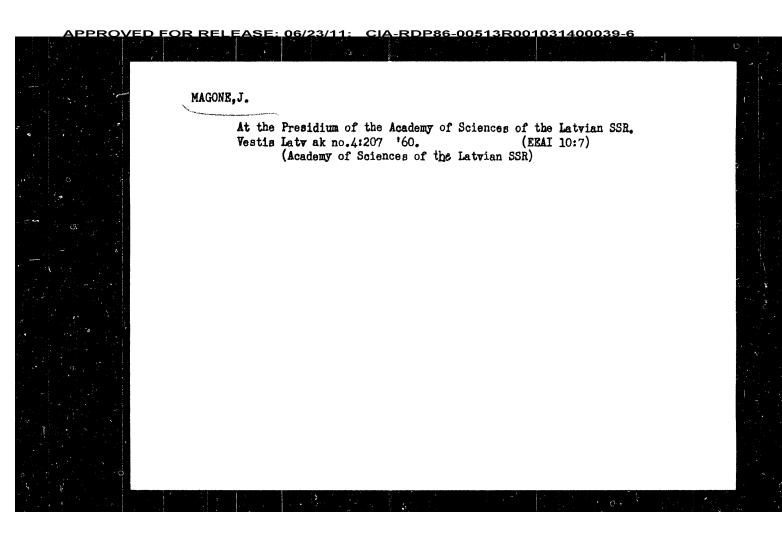


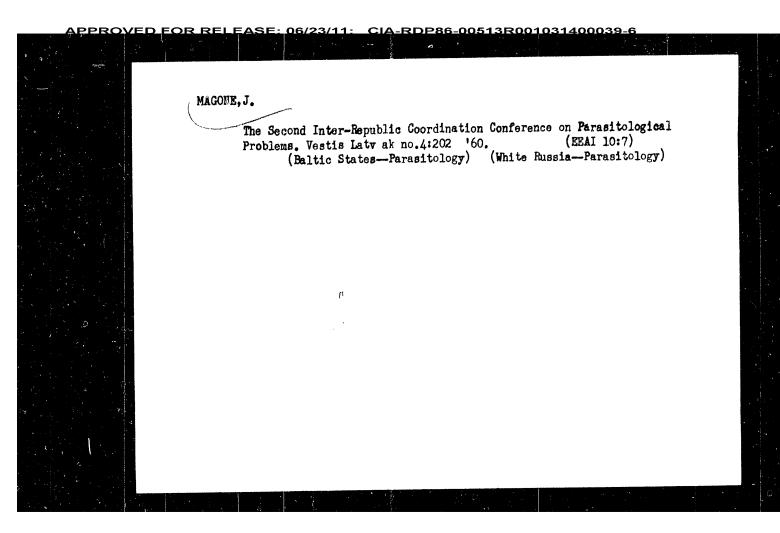


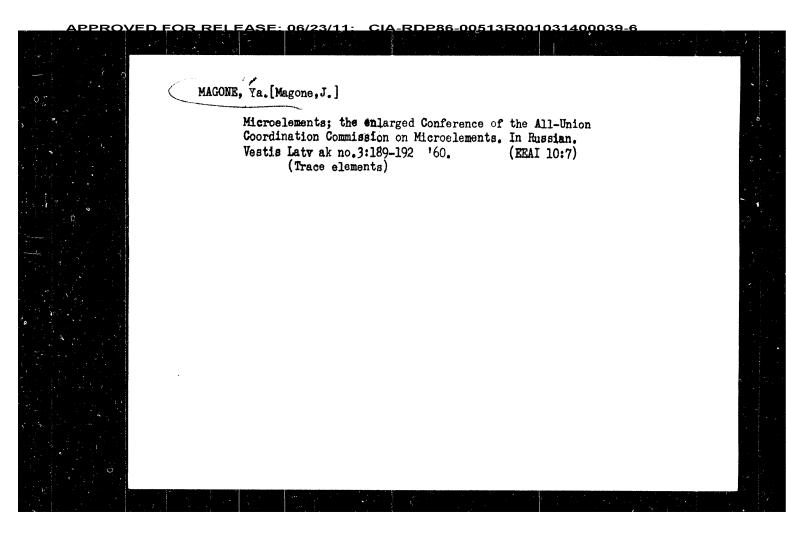


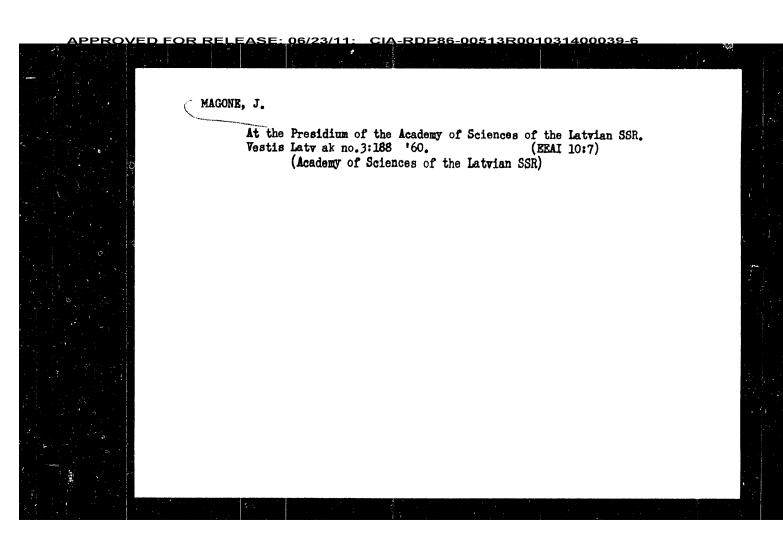
MAGONE, J. Grand meeting of the Academy of Sciences dedicated to the 20th anniversary of Soviet Latvia. Vestis Latv ak no.7:229-230
(EEAI 10:7)
(Latvia--History) (Academy of Sciences of the Latvian SSR)



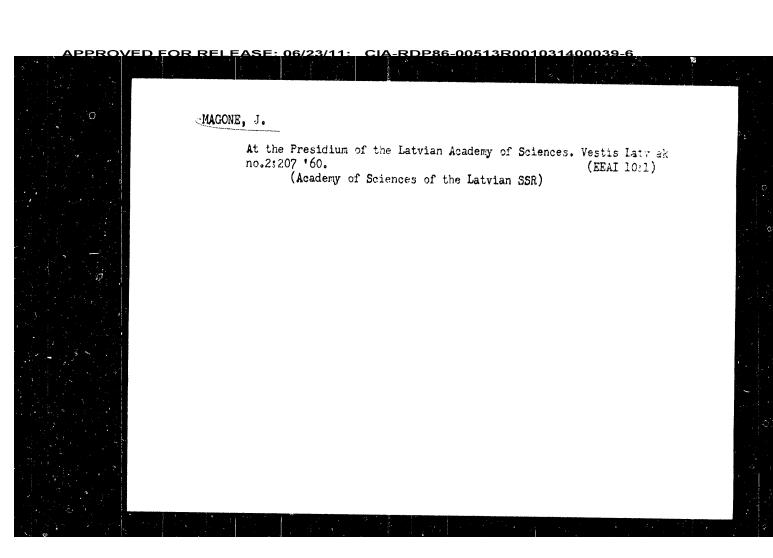


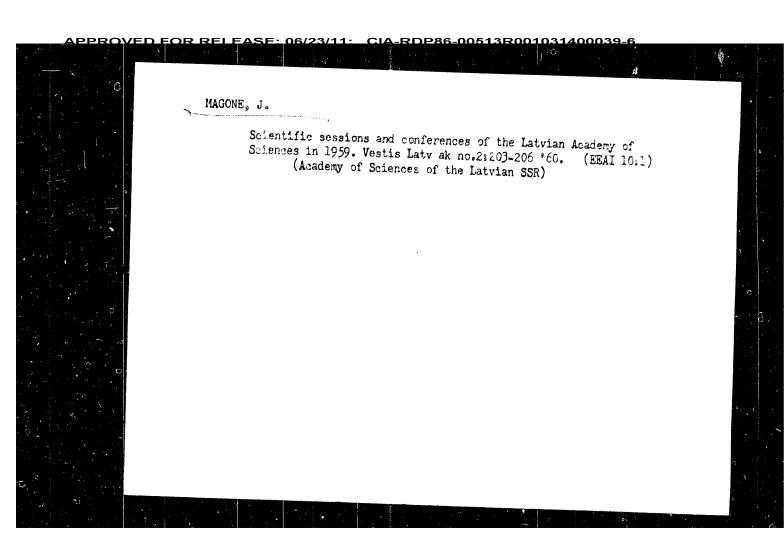




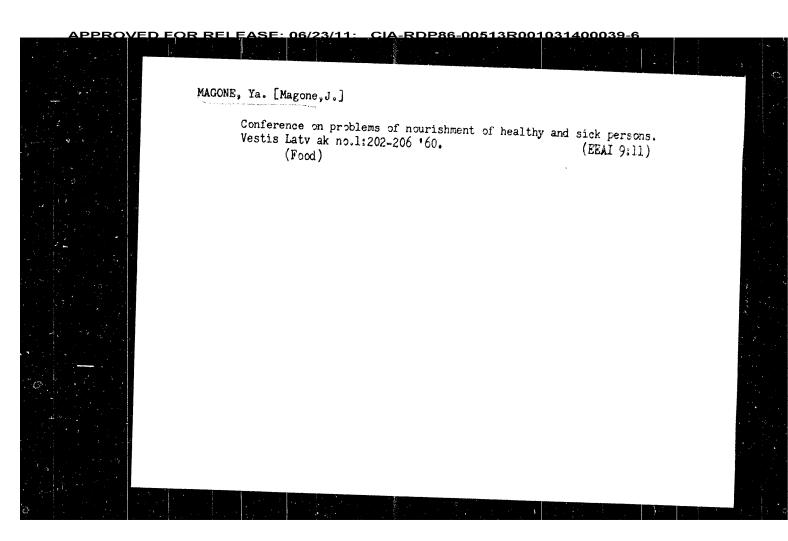


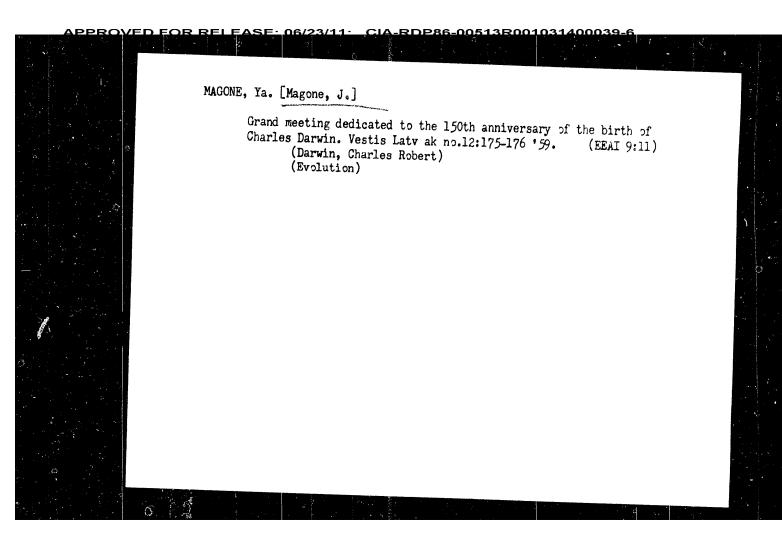
MAGONE, YA. [Magone, J.] General meeting of the Academy of Sciences of the Latvian SSR on February 11, 1960. In Russian. Vestis Latv ak no.3:21-25 (EEAI 10:7) (Academy of Sciences of the Latvian SSR)

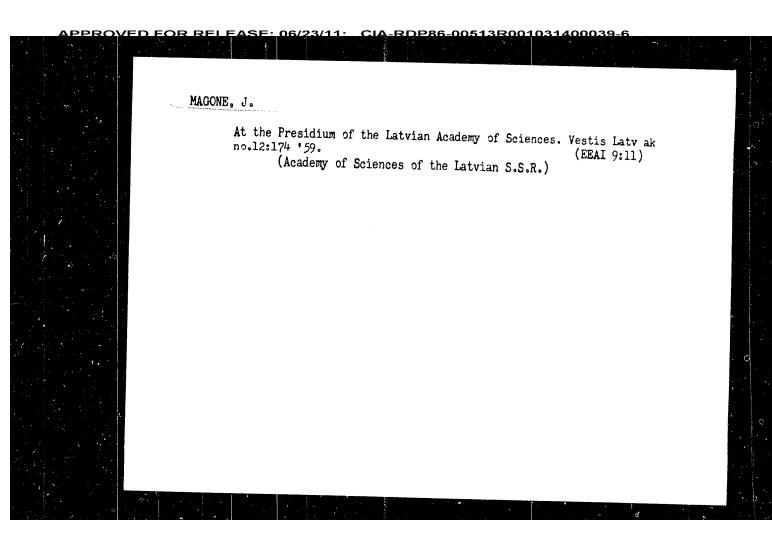




MAGONE, Yu. [Magone, J.] In commemoration of the late P.I.Stradins and the unveiling of his tombstone. Vestis Latv ak no.2:196 '60. (EEAI 10:1) (Stradins, Pauls) (Physicians, Latvian)







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APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031400039-6

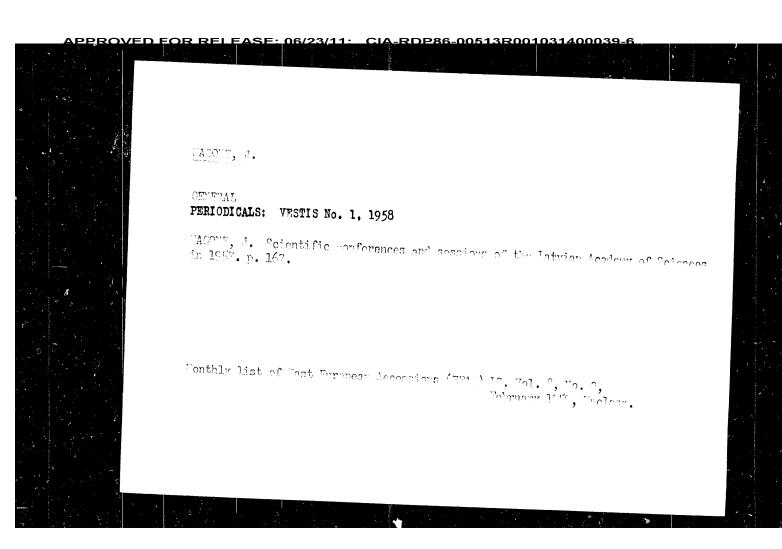
MAGONE, J.

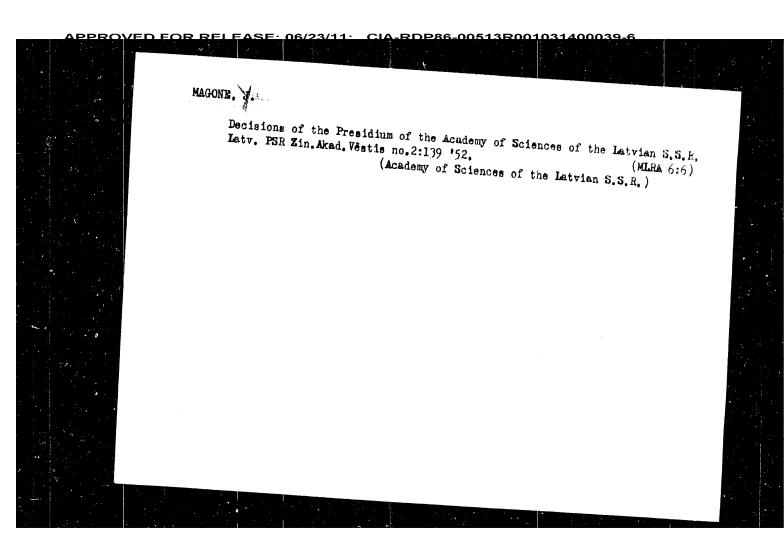
GENERAL

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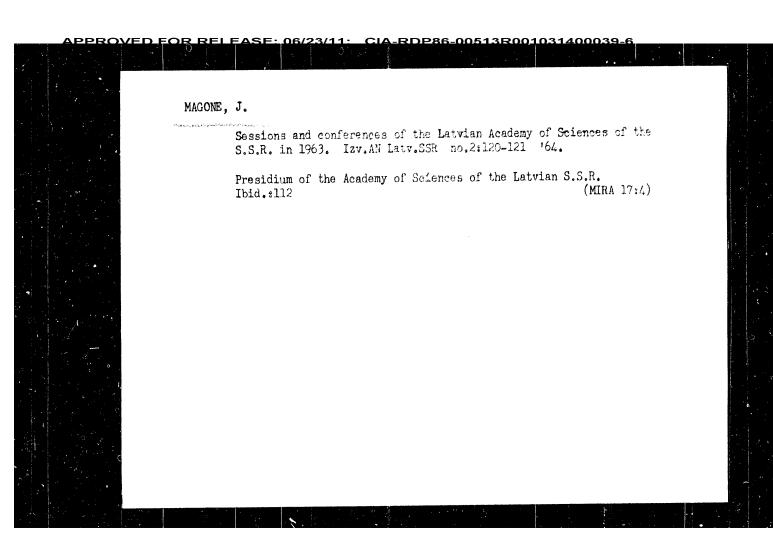
Monthly list of East European Accessions (EEAI) LC, VOL. 8, No. 2 February 1959, Unclass.

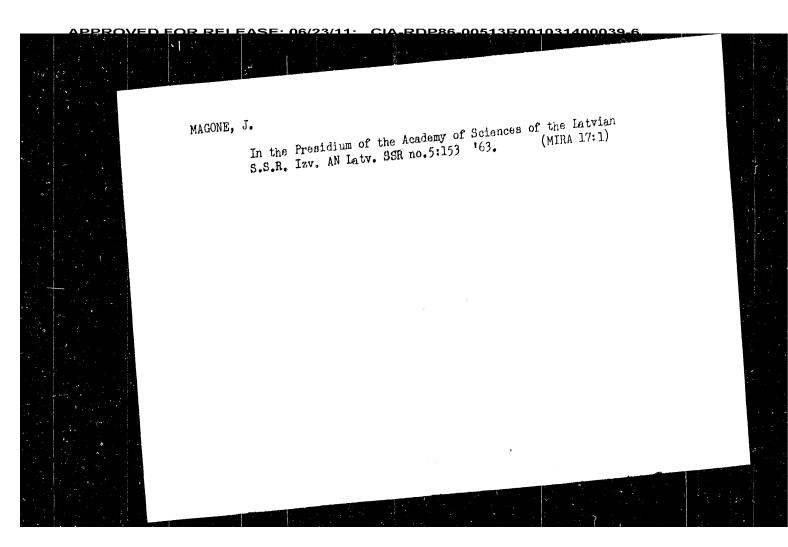




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1. J. MAGONE 2. USSR (600) Agriculture 7. Joint scientific session on problems of biology and agriculture. Latv. PSR Zin. Akad. Vestis no. 11. 1951 9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl. 1. MAGONE, J. 2. USSR (600) 7. Scientific session of the Academy of Sciences dedicated to the first anniversary of publication of Comrade I. V. Stalin's outstanding work "Marxism and problems of of publication of Comrade I. V. Stalin's outstanding work "Marxism and problems of other publication of Comrade I. V. Stalin's outstanding work "Marxism and problems of other publication of Comrade I. V. Stalin's outstanding work "Marxism and problems of other publication of Comrade I. V. Stalin's outstanding work "Marxism and problems of publication of Comrade I. V. Stalin's outstanding work "Marxism and problems of publication of Comrade I. V. Stalin's outstanding work "Marxism and problems of the Academy of Sciences dedicated to the first anniversary of the Academy of linguistics." Latv. PSR Zin Akad Vestia No. 6 9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.





MAGONE, J. 2. USSR (600) Letvie - Reclemetion of Lend Out-of-town session of the Ladaudicrajes Institute of the actions of Sciences of the Edvin J.S.i. in Jet give. Latv. PSR Zin. Acad, Testis 2, 1951 9. Monthly List of Russian Accessions, Library of Congress, January 1953. Unclassified.

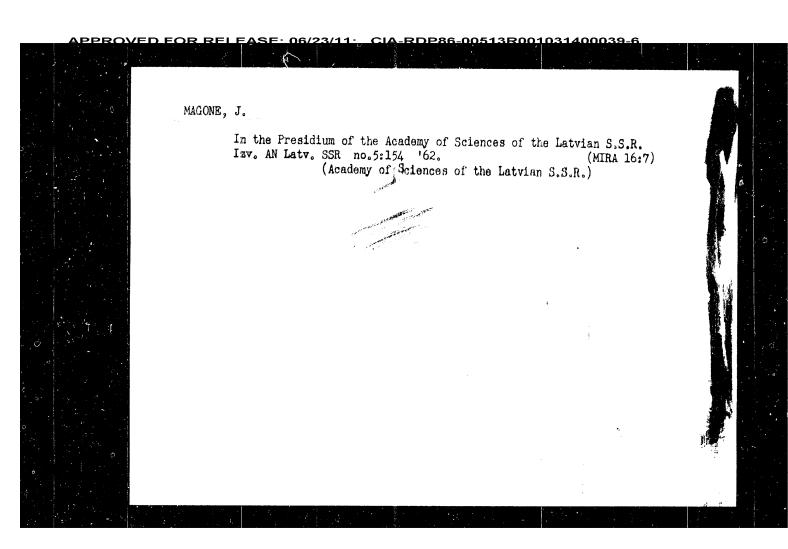
1. MAGOME, J. 2. USSR (600) 4. Letvis - Reclassion of Lond 7. Out-of-town session of the band mechantion Institute of the holdery of Sciences of the Latvien S.S.A. in delgave. Latv. PSR Zin Akad. Vestis 1, 1951 9. Monthly List of Russian Accessions, Library of Congress, January 1953, Unclassified.

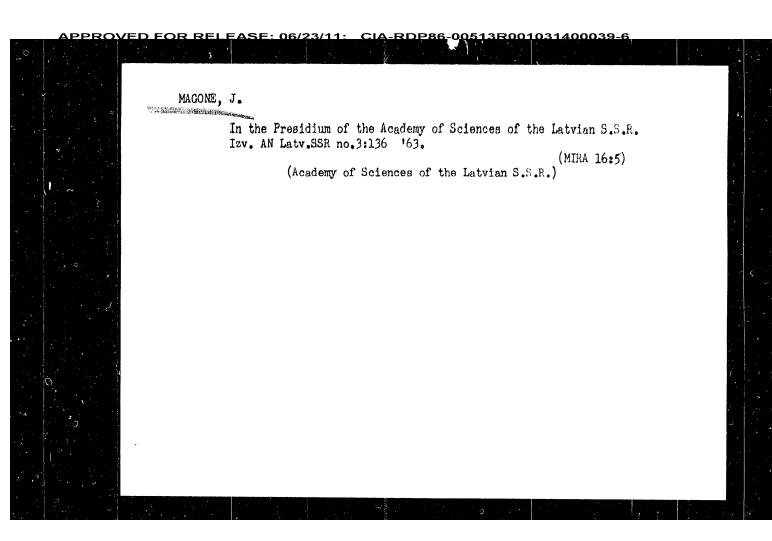
1. MAGONE, J. USSR (600) 4. Reclamation of Land - Latvia 7. Out-of-town session of the Land Reclamation Institute of Academy of Sciences of the Latvian S.S.R. in Valmiera. Latv.PSR Zin.Akad. Vestis no. 10, 1950. Monthly Lists of Russian Accessions, Library of Congress, March 1953, Unclassified.

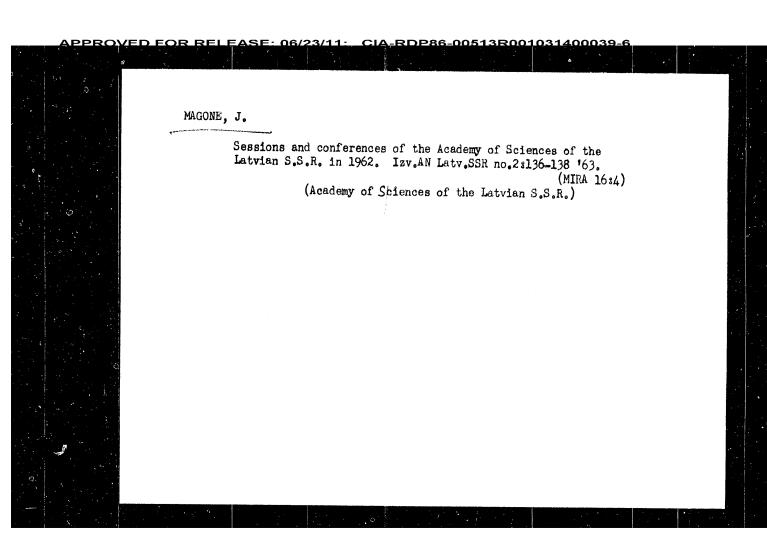
MAGONE, YA.

29115 Vyezdnaya sessiya akademii nauk Latviyukoy ash v. Daugavpilne (po voprosum razvitiya kolkhoznogo strottel'stva v hospublike, lyan' 1949 g.) Izvestiya Akad. aauk "atv. SSR. 1949, ho.3, s. 145-52 - ha Latysh. i rus. yaz.

SC: Letopis' Zhurnal'nykh Statey, Vol. 39, Moskva, 1949



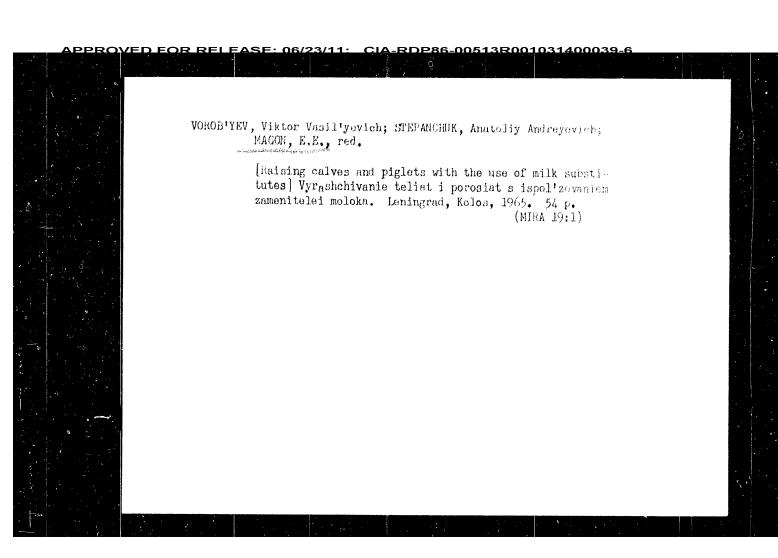




BELEKHOV, Gennadiy Fetrovich; CHUBIMSKAYA, Alla Aleksandrovna;
MAGON, B.E., red.

[Mineral and vitamin mutrition of farm animals] Mineral'noe i vitaminnoe pitanie sel'akokhoziaistvennykh zhivotnykh. Izd.2., perer. 1 dop. Leningrad, Kolos, 1965. 297 p.

(MIRA 19:1)



DMITHOCHENKO, A.P., prof., red.; NACON, E.E., red.

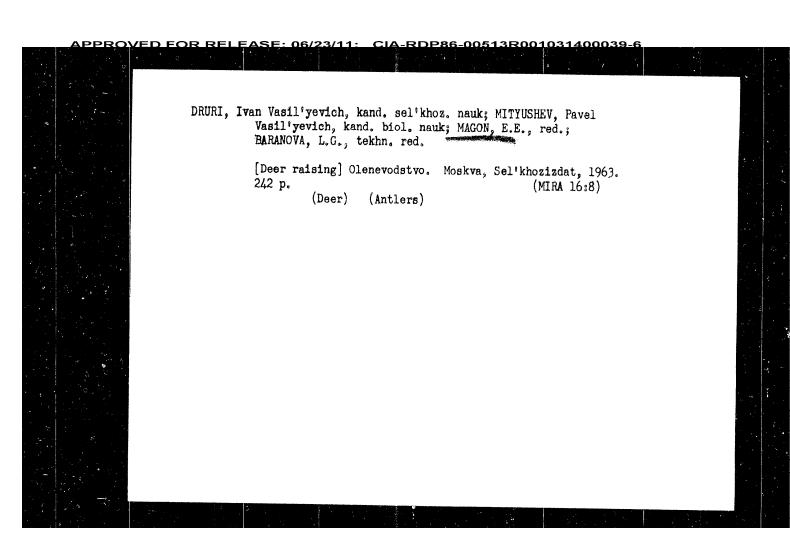
[Feeding and raising young farm animals; collection of scientific work] Kormlenie i vyrashchivanie molodniaka sel'eko-khosiaiatvennykh zhivotnykh; abornik nauchnykh rabot. Moskva, Izd-vo "Kolon." No.5. 1964. 315 p. (Mink 17:4)

1. Leningradskiy sel'skokhozysystvennyy institut (for Dmitrochenko).

LEBEDEV, M.M., prof., red.; MAGON, E.E., red.

[Beredity and variability in farm animals; collection of scientific papers] Masledstvenmost' i immenchivest' sel'-skokhozialstvennykh zhivetnykh; sbornik nauchnykh trudev, Pod red. M.E. Letedeva. Leningrad, 1zd-ve "Kolos, '1964. (MIRA 17-6)

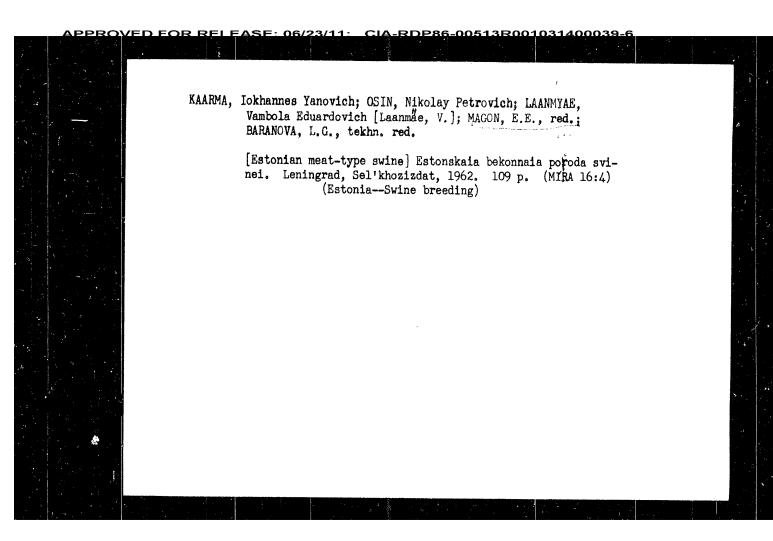
1. Fushkino. Hauchmo-issledovatel'skaya laboratoriya po razwedeniyu sel'skokhozyaystvennykh zhivetnykh.



MAKAROVA, Mariya Mikhaylovna; MAGON, E.E., red.; BARANOVA, L.G., tekhn. red.

[Microbiology of silage] Mikrobiologiia silosa. Leningraf, Sel'khozizdat, 1962. 190 p. (MIRA 16:4)

(Ensilage--Microbiology)



SHCHERBOV, Nikita Antonovich, prof.; MACON, E.E., red.; BARANOVA, L.G., tekhm. red.

[Keeping suckling sows with baby pigs in groups]Gruppovoe soderzhanie podeosnykh matok s porosiatami. Leningrad, Sal'khozizdat, 1962. 78 p. (MIRA 15:11)

(Swine)

IMITROCHEMKO, Aleksandr Petrovich, zasl. deyatel' nauki RSFSR;
PSHEMICHRYT, Pavel Dmitriyevich, akademik; MAGON, E.E., red.;
BARANOVA, L.G., tekhm. red.

[Feeding farm animals] Kormlenie sel'skokhoziaistvennykh zhivotnykh. Leningrad, Izd-vo sel'khoz. lit-ry, zhurnalov i plakatov, 1961. 527 p. (MIRA 15:1)

1. Ukrainskaya akademiya sel'skokhozyaystvennykh nauk (for Pshenichnyy).

(Feeding)

MAGONSTOV, A.Z.

Case of uncorrected left inguinoscrotal hernia in an eight-year-old child. Khirurgiia 35 no.3:102 Mr '50.

1. Iz Kurchaloyevskoy rayonoy bol'nitsy (glavnyy vrach (HERNITA)

(HERNITA)

1. MAGOMETOV, A. A. USSR (600) Kubachi Dialect - Phonetics Sound m in the Kubachi dialect of the Darghin language. Soob. AN Gruz. SSR 11, No. 7, 1950. 9. Monthly List of Russian Accessions, Library of Congress, \_ May \_1953, Uncl. MACOMEDUVA, A. I.: "The use of chioromycetin and sintomycin to treat progressive and other puruient users of the corneal membrane." cians. Moscow, 1956.

(Discertation for the Legree of Candidate in Medical Science)

So: Knizhanava Letopis, No 17, 1950

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031400039-6

## L 21225-66

ACC NR: AP6003821

different mechanisms (electronic and phonon) of thermal conductivity in semiconductors. A jump in the thermal conductivity by a factor of two is observed during melting, and a jump in the electric conductivity by a factor of 5.4. Further ity and thermal conductivity. The latter reaches a maximum at 985K. The electric conductivity continues to rise with increasing temperature and is connected with the metallization of the bonds between the elements of the compound. It is concluded that gallium antimonide is a semiconductor in the solid state and in the melting region, and has metallic properties in the liquid state. The variation of conductivity. Orig. art. has: 2 figures and 1 formula.

SUB CODE: 20/ SUBM DATE: 20Feb65/ ORIG REF: 019/ OTH REF: 002

Card 2/2 dda

EWT(m)/EWP(t) ACC NR: IJP(c) AP6003821 SOURCE CODE: UR/0181/66/008/001/0290/0292 AUTHOR: Amirkhanov, Kh. I.; Magomedov, Ya. B. ORG: Institute of Physics, Dagestan Branch AN SSSR, Makhachkala (Institut fiziki TITLE: Thermal conductivity of gallium antimonide in solid and liquid states 57 SOURCE: Fizika tverdogo tela, v. 8, no. 1, 1966, 290-292 TOPIC TAGS: gallium alloy, thermal conduction, ordered alloy, semiconductor alloy, electric conductivity, heat change of state, melting, temperature dependence ABSTRACT: The purpose of the investigation was to clarify the mechanism of the thermal conductivity and the effect of short-range order on its component parts. The thermal conductivity was measured by an absolute method under stationary thermal conditions, as described elsewhere (Izv. AN AZSSR v. 4, 3, 1946) in an argon atmosphere, using polycrystalline samples of p-type GaSb with carrier density

3.6 x 1010 cm<sup>-3</sup>. The data obtained at room temperature agree well with the published results. This is claimed to be the first information on the temperature dependence of the thermal conductivity of GaSb at high temperatures and in the liquid states. The results are interpreted from the point of view that there are several

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ACCESSION NR. AP5005314

the constictivity due to the corner diffusion. This is due to the large ratio (88—90) of the alertic cannot have make it. The stream of the thermal conductivity to colcumb the rhemal results. The phonon conductivity is also calculated, and the results show that the phonon conductivity is also calculated, and the results show that the stream result of the phonon conductivity is also calculated, and the results show that the stream is a small from 125 to 240 is due to pure three phonon scriptivity in the stream conductivity in the stream of the alertic conductivity and thermal conductivity in the stream of the alertic conductivity and the make it and sitting was the other with further health of the make and sitting of the make and sitting the results in the material of the make and sitting the results in the material of the make and sitting the results in the material of the make and sitting the results in the material of the make and sitting the results in the material of the make and sitting the results in the material of the make and sitting the results in the material of the mat

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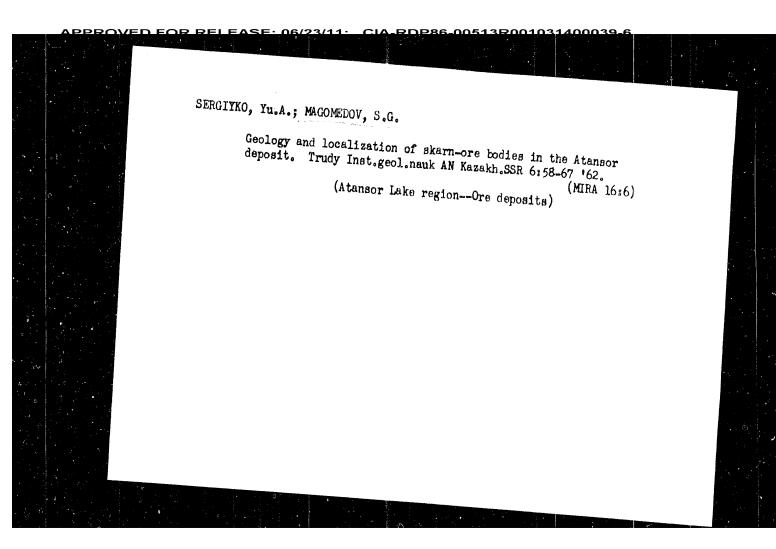
AUTHORS: Amigkionovy Kir. I., Managemedo y va is a Lipic of maling antimonide in the solid and liquid states

SOURCE: Flake tverage hale, v. 7, no. 2, 1965, 637-640

ESTRACT: Results are reported of the measurements of the Hermal conductivity phonon scataling, malling point

ASTRACT: Results are reported of the measurements of the Hermal conductivity of insis in the solid and significant the solid and significant to solid and second significant to solid and second significant to solid significant solid and solid significant to solid significant solid significa

SHLYGIN, Ye. D.; MUKANOV, K. M.; GRISHIN, V. M.; MAGOMEDOV, S. G. Supergene concentrations of gold in the gold ore deposits of northern Kazakhstan. Vest. AN Kazakh. SSR. 19 no.8:43-46 Ag '64. (MIRA 17:7)



327-50-6-7/25 The Atansor Iron Ore Deposits in Kazakhutan ASSOCIATION: Tsentral'no-Kazakhstanskoye geologicheskoyo usrovleniye (The Central Kazakhstan Grologich Adequation of the Central Kazakhstan Grologicheskoyo usrovleniye AVAILABLE: Library of Congress 1. Magnetites 2. Magnetometers 3. Iron 4. Geology Card 2/2

MAGOHEDOV, SG

127-58-6-2/25

AUTHORS:

Uzbekov, M.R. and Magomedov, S.G., Geologists

TITLE:

The Atanscr Iron Ore Deposits in Kazakhstan (Atansorskoye

CIA-RDP86-00513R001031400039-

mestorozhdeniye v Kazakhstane) Zheluzorudnoye

PERIODICAL:

Gornyy Zhurnal, 1958, Nr 6, pp 5~9 (USSR)

ABSTRACT:

The Atansor ore deposits are situated on the south-western shore of Lake Atansor, in the Kokchetay Oblast; of Kazakhstan. The deposits were discovered in 1932, but were not fully explored until 1953, when magnetometric prospecting showed their importance. The ore bodies are formed by layers of magnetites, garnet-magnetites and amphbolicmagnetite scarns, the contents of iron reaching in some places 53.3%. Many other ore-deposits are known in this region; and many magnetic anomalies observed here permit the estimation of the available deposits of the Stepnyaksko-Atansor area to be 500-600 million tons. In future the Atansor region could serve as a second ore base for the Karagandinskiy metallurgicheskiy zavod (Karaganda Metal-

lurgical Plant).

Card 1/2

There is 1 map and 2 graphs.

Name: MAGOMEDOV, Rasul Magomedevich

Dissertation: Social-Economic end political structure of Dagestan in the 18th and beginning of the 19th Centuries

Dogree: Page Historical Sei

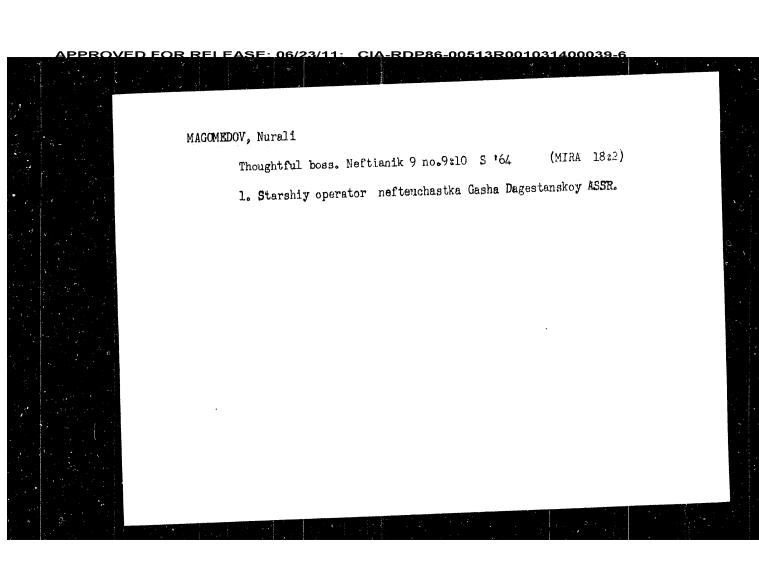
Affiliation: Pagestan State Pedagogical Inst imeni Stal'skiy

Defense Date, Place: 10 Jan 57, Council of Azerbaydzhan State U imeni Kirov

Certification Date: 1 Jun 57

Seurce: FMVO 16/57

PA 66TL MAGOMEDOV, R. M. Jan 1948 USSR/Academy of Sciences "The Dagestan Scientific Research Base of the Academy of Sciences USSR, " R. M. Magomedov, 3 pp "Vest Ak Nauk SSSR" No 1 Organizational work of the Dagestan Base was completed in Jun 1946. Installation serves in the development of the Republic's economy, with particular emphasis on electric power, petroleum, gas, farming, and animal husbandry. 66**T**1



L 2214-66 AP5019242 ACCESSION NR: finding the invariant Laplacian, and solving the wave equation. infinitesimal operators of U3 are then determined as linear differential operators and their matrix elements are calculated in an arbitrary representation. The supermultiplets are classified in terms of rectangular diagrams in the (-S, 2T) plane. The infinitesimal operators are introduced as linear differential operators and their operators are introduced as linear differential operators. matrix elements are computed for an arbitrary representation. The authors thank V. B. Berestetskiy, I. Yu. Kobzarev, and L. B. Okuniff for helpful discussions. Originart. has: 35 formulas ASSOCIATION: None MA SUB CODE: ENCL: 00 SUBMITTED: 03Feb65 OTHER: NR REF SOV: Card 2/2 DP

AUTHORS: Magomedov, M. R.; Sudakov, V. V.

TITLE: Realization of the three-dimensional unitary group by spherical functions!

SOURCE: Zhurnal eksperimental noy 1 teoreticheskoy fiziki, v. 49, no. 1, 1965, 279-291

TOPIC TAGS: group theory, matrix function, mathematic operator

ABSTRACT: The authors develop the mathematical formalism of the three-dimensional unitary group U<sub>3</sub> on the basis of a parametrization and realization of this group by means of special spherical functions which, for certain purposes, have definite advantages over the abwhich, for certain purposes, have definite advantages over the abwhich, for certain purposes, have definite advantages over the abwhich, for certain purposes, have definite advantages over the abwhich for certain purpo

L 1838-66 ACCESSION NR: AT5022280 Okun! for valuable comments." Orig. art. has: 5 figures and 35 formulas. ASSOCIATION: [Magomedov] Fizicheskiy institut goskomiteta po ispol'zovaniy ASSOCIATION: [Magomedov] Fizicheskiy institut goskomiteta po ispol'zovaniy atomnoy energii SSSR, Yerevan (Physics Institute, State Committee on the Use of Atomic Energy); [Sudakov] Institut teoreticheskoy i eksperimental noy fiziki goskomiteta po ispol'zovaniyu atomnoy energii SSSR (Institute of Theoretical and Experimental Physics, State Committee on the Use of Atomic Energy) SUB CODE: NP, MA 00 ENCL: SUBMITTED: 28Dec64 005 OTHER: NO REF SOV: 5

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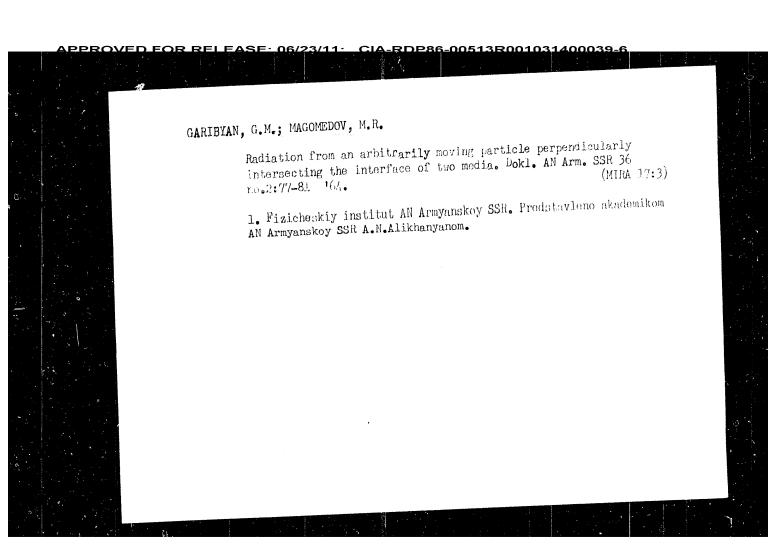
AUTHOR: Magomedov, M. R.; Sudakov, V. V.

TITLE: Realization of a three-dimensional unitary group by "spherical functions"

SOURCE: USSR. Gosudarstvennyy komitet po ispol'zovaniyu atomnoy energii. Institut teoreticheskoy i eksperimental'noy fiziki. Doklady, no. 311, 1964. Realizatsiya trekhmernoy unitarnoy gruppy sfericheskimi fundtsiyami, 1-31

TOPIC TAGS: group theory, particle interaction, wave function

ABSTRACT: A convenient parametrization of the three-dimensional U3 group is used to represent this group in the form of "spherical functions," which is preferable for certain purposes to the abstract-operator approach. The method consists of the following steps: (1) parametrization of the set of unit consists of the following steps: (1) parametrization of the set of unit vectors, (2) determination of the invariant metric, (3) derivation of the vectors, (2) determination of the wave equation. The supermultiplets invariant Laplacian, and (4) solution of the wave equation. The supermultiplets are classified in the form of square diagrams on the plane -S, 2T). Infinitesiare classified in the form of square diagrams on the plane -S, 2T). Infinitesiand group operators are introduced in the form of linear differential operators, and their matrix elements are computed for an arbitrary representation. "In conclusion, the authors thank V. B. Berestetskiy, I. Yu. Kobzarev, and L. B. Card 1/2



Radiation emitted ...

S/252/63/036/002/001/003

Radiation emitted ...

cits. A general expression is obtained for the vector potential in both media as a function of time. These formulas become identical both the formulas for constant velocity only when the particle comes with the formulas for constant velocity only when the particle comes to rest at infinity. There is 1 figure.

ASSOCIATION: Fizicheskiy institut (Physics Institute)

PRESENTED: by A.N. Alikhanyan, Academician AS Arm.SSR

SUBMITTED: October 17, 1962

S/252/63/036/002/001/003 D218/D308

AUTHORS:

Garibyan, G.M. and Magomedov, M.R.

TITLE:

Radiation emitted by an arbitrarily moving particle moving at right angles to the boundary of separation

of two media

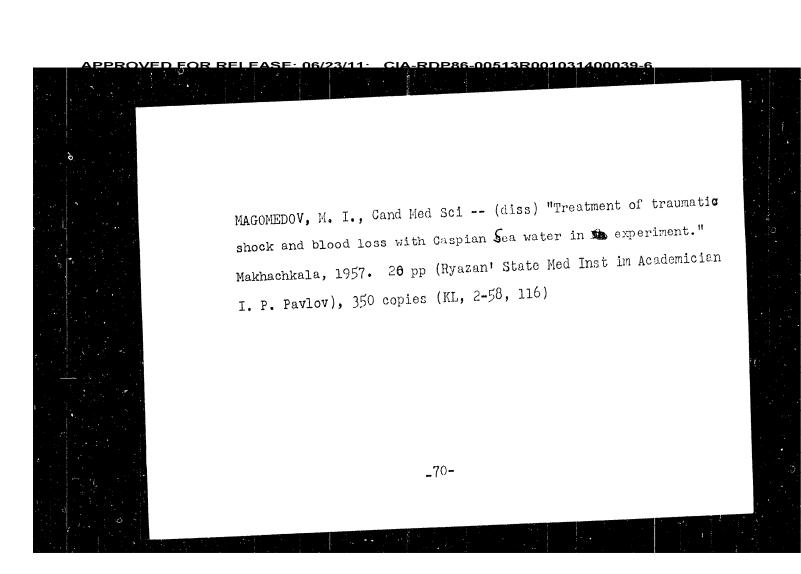
PERIODICAL:

Akademiya nauk Armyanskoy SSR. Doklady, v. 36, no.2,

1963, 77-81

TEXT: Ginzburg and Frank (ZhETF, 16, 16, 1946) have shown that when a charged particle passes through the separation boundary between two media, a transition radiation is emitted. It is noted between two media, a transitions the velocity of the particle was that in all previous calculations the velocity of the particle was that in all previous calculations the present work was to investiassumed to be constant. The aim of the present work was to investigate the effect of irregular motion of the particle on the transigate the effect of irregular motion of the particle on the transition radiation. In a previous paper (ZhETF, 38, 18, 66, 1960) the tion radiation. In a previous paper (ZhETF, 38, 18, 66, 1960) the first of the present authors studied this problem for an ultra-relativistic particle and high frequencies. The present theory is a tivistic particle and high frequencies. The present theory is a generalization of these calculations to arbitrary velocity frequencements.

Card 1/2



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strate surface. They also show that the growth kinetics can be explained by assuming the presence of two chemical reactions during the formation of the film, which have equal probability at higher temperatures (500 - 3000). This explains, in particular, the disappearance of excess arsonic when sine and cadmium are introduced in the gas phase, and the resultant absence of temping. The results also show that introduction of impurities contributes to a balance in the stoichiemotry show that introduction of impurities contributes to a balance in the stoichiemotry and thereby decreases the number of growth defects. Immercus details concerning the influence of doping on the growth rate in different directions and concerning the informal structure of the layers are reported. The authors thank V. G. Lymitsau for an x-ray study of the crystals, O. S. Gordon for help with the experimental work, and Te. T. Givargizov for critical remarks. Orig. art. has: 7 figures and 2 formulas.

SUB CODE: 20/

SUBM DATE: 28Jan66/

ORIG REF: 003/

OTH REF: 004

Card 2/2 bc

EVT(m)/EWP(t)/ETI JJP(c) L623 (A) SOU SOURCE CODE: UR/0070/66/011/004/0673/0686 ACC NR: AP6024673 AUTHOR: Magomodov, Kh. A.; Yarmukhamedov, Yu. N.; Shoftal', N. I. ORG: Institute of Crystallography AN SSSR (Institut kristallografii AN SSSR) TITLE: Influence of doping on the growth rate and morphology of epitaxial gallium arsonido films SOURCE: Kristallografiya, v. 11, no. 4, 1966, 673-680 TOPIC TAGS: gallium arsonide, semiconducting film, epitaxial growing, semiconductor impurity, stoichiometry, twinning ABSTRACT: The authors investigate the influence of Zn and Cd denors and So and To acceptors on the growth rate and structure of epitaxial films grown from the gas phase with the aid of a chemical reaction in an open system. The apparatus and the growth procedure were described earlier (in: Rost kristallov [Growth of Crystals] v. 6, Nauka, 1965, p. 388). The substrates used were gallium arsonide plates with various orientations and various types of conductivity. The results confirm earlier conclusions drawn by the authors (Kristall und Technik v. 1, no. 2, 1906) regarding the effect of stoichiometry of the components of the compound on the sub-UDC: 548.0:539.23

Card 1/2

## L 22865-66

ACC NR: AP6011360

at a given point. It is also established that in contrast to a corresponding two-dimensional scheme, the order of difference approximations is reduced to the first order in the purely three-dimensional case. Difference equations are derived, and the parameters of the desired point are obtained from two correlations along streamlines and two along bicharacteristics. Four elementary problems are considered: determination of points inside the flow, on the surface of the body, on a shock wave, and and on a free surface. The method described here is substantiated by numerical calculation of hypersonic flows past a spherically blunted cone with semiapex angles of 4°53' and 9°30' at M = 6 and at an angle of attack a = 5°. The author thanks V. V. Lunev for constant interest in the work. Orig. art. has: 3 figures and

SUB CODE: 20/ SUBM DATE: 13Mar65/ ORIG REF: 006/ OTH REF: 007/ ATD PRESS:

4232

Card 212 2C

EWT(1)/EWP(m)/EWA(d)/EWA(1) 22865-66 SOURCE CODE: UR/0208/66/006/002/0313/0325 AP6011360

66

B

AUTHOR: Magomedov, K. M. (Moscow)

ORG: none

TITLE: A method of characteristics for numerical calculation of three-dimensional flows

SOURCE: Zhurnal vychislitel'noy matematiki i matematicheskoy fiziki, v. 6, no. 2, 1966, 313-325

TOPIC TAGS: supersonic aerodynamics, supersonic flow, three dimensional flow, steady flow, shock wave, flow analysis

A number of methods of characteristics for numerical calculation of ABSTRACT: three-dimensional supersonic flows or unsteady two-dimensional problems of gas dynamics are evaluated and their complexity stressed. A new approach is outlined by which relative simplicity and uniformity are attained. The equations of a steady three-dimensional supersonic flow are transformed to an equivalent characteristic form which is not the only possible one. Therefore, a general form of characteristic correlations (compatibility conditions) is considered along a single-parameter family of bicharacteristics passing through a given point. It is demonstrated that an equation describing supersonic steady flow can be reduced by equivalent transformations to a system containing variables only along streamlines and bicharacteristic directions

UDC: 517.9.533.7 Card 1/2

## L 12773-66

ACC NR: AP6003369

son of experimental weight loss measurement data with calculated data served as a criterion of equilibrium. It was shown that the near equilibrium conditions for GaAs thin film deposition were: 1000C at the GaAs source, 640C at the substrate, 2.26 x  $10^{-3}$  molar iodine concentration in the  $H_2 + I_2$  mixture, and 5 cm/sec space velocity over the source. Supersaturation in the deposition region increased from 2 to 7 when temperature was decreased from 850 to 600C. Enthalpy  $\Delta H$  was also calculated from the experimental data both for the reaction at the source:  $2 \text{GaAs}(s) + I_2(g) = 2 \text{GaI}(g) + 1/2 \text{As}_4(g)$  and for the above given reaction in the deposition region. The  $\Delta H_{1100\text{K}}$  of the first reaction was found lower than the value calculated from literature data, and  $\Delta H_{1000\text{K}}$  of the second reaction was nearly the same as the value based on literature data. Orig. art. has: 5 figures, 1 table, and 22 formulas. [JK]

SUB CODE: 07, 20/ SUBM DATE: 03May65/ ORIG REF: 002/ OTH REF: 006/ ATD PRESS:

4184

Card 2/2 HW

L 12773-66 EWT(m)/EWP(t)/EWP(b) IJP(c) JD/JW/JG

ACC NR: AP6003369

SOURCE CODE: UR/0363/66/002/001/0117/0123

AUTHOR: Magomedov, Kh. A.

ORG: Institute of Crystallography, Academy of Sciences SSSR (Institut kristallografi Akademii Nauk SSSR)

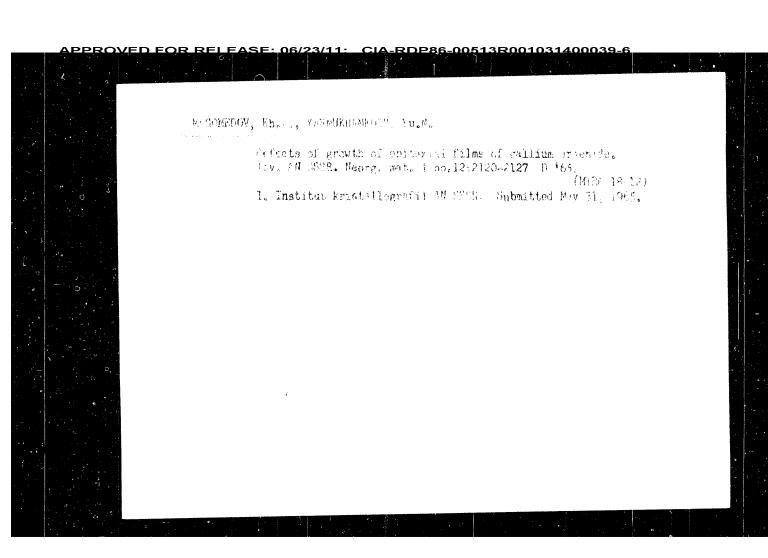
TITLE: Equilibrium conditions and supersaturation in the GaAs-I2-H2 system

SOURCE: AN SSSR. Izvestiya. Neorganicheskiye materialy, v. 2, no. 1, 1966, 117-123

TOPIC TAGS: crystal growth, epitaxial growing, gallium arsenide, thin film, chemical transport reaction, reaction mechanism

ABSTRACT: Supersaturation of the vapor phase in the GaAs deposition region has been calculated as a function of crystallization temperature in the 600-850 C range in the open flow system of gallium arsenide iodine hydrogen. This research work was prompted by the lack of data on supersaturation which is a very important parameter of crystallization, and determination of which helps to understand the mechanism of crystal growth by chemical transport reactions. The known formula for isobaric-isothermic potential was used for calculating supersaturation on the basis of the experimental equilibrium data which were obtained for the reaction:  $2\text{GaAs}_{\{s\}} + \text{GaI}_3(g) \neq 3\text{GaI}(g) + 1/2 \text{As}_4(g)$  in the deposition region of the open flow system. The open flow apparatus was a vertical tube in which hydrogen saturated with iodine vapors was flowing at atmospheric pressure and in a temperature gradient through a layer of GaAs. Compari-

Card 1/2 UDC: 541.123.3-546.681'191-546.15-546.11



L 15205-66 ACC NR: AP6001227 flow rate is 5 cm/sec, no growth figures whatever form on surface A (111) if the surface of the substrate is subjected to annealing and gas etching prior to the growing. Authors thank Yu. N. Yarmukhamedov for assistance in the microscopic study and in obtaining photomicrographs of the film. Orig. art. has: 5 figures and 1 formula. SUB CODE: 11, 20 / SUBM DATE: 31May65 / ORIG REF: 002 / OTH REF: 016

1 15205466 EMT(m)/T/EMP(t)/EWP(b) LJP(c) JD/JG

SOURCE CODE: UR/0363/65/001/012/2113/2119

AUTHOR: Magomedov, Kh. A.; Sheftal', N. N.

ORG: Institute of Crystallography, Academy of Sciences SSSR (Institut kristallografii Akademii nauk SSSR)

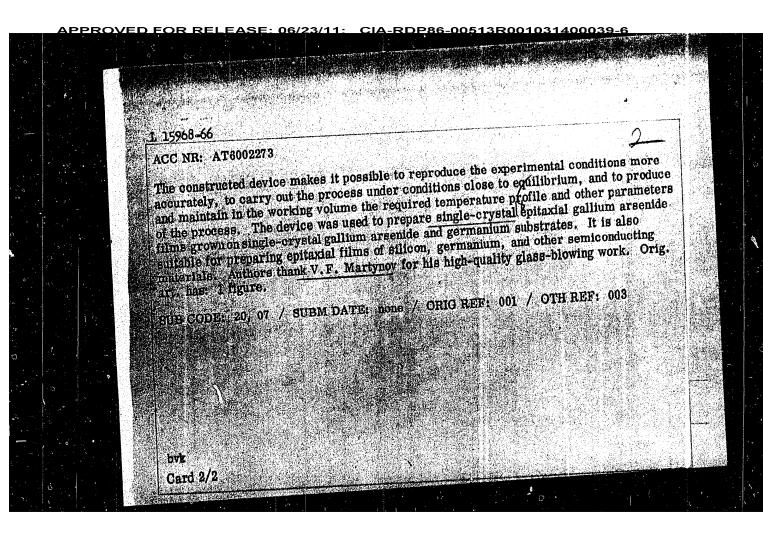
TITLE: Mechanism of growth and defects of epitaxial gallium arsenide films'

SOURCE: AN SSSR. Izvestiya. Neorganicheskiye materialy, v. 1, no. 12, 1965, 2113-2119

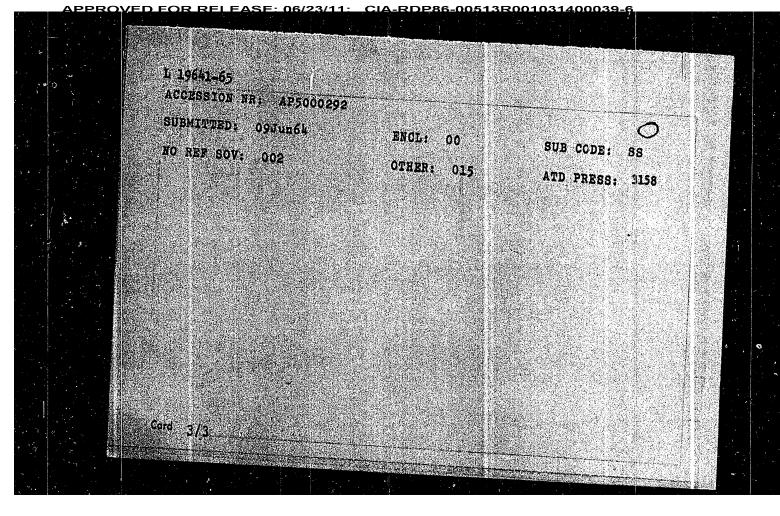
TOPIC TAGS: epitaxial growing, gallium arsenide, crystal defect

ABSTRACT: The effect of mainly two factors, the crystallization temperature in the 550 - $850\,\mathrm{C}$  temperature range and partial pressure of iodine in the  $0.6-8\,\mathrm{mm}$  Hg pressure range, on the perfection of GaAs epitaxial films was investigated. At 640 - 650C packing defects in the form of equilateral triangles, isosceles trapezoids, and single lines are formed on surface A (111). Sometimes growth pits also appear. At higher temperatures of the deposition zone (700 - 850C), only growth pits in the form of trigonal, ditrigonal, exagonal truncated, and complete pyramids are formed. The formation of stacking faults and growth pits is due to the presence of oxide islets of  $\beta$ -Ga $_{3}$ O $_{3}$  on the substrates. No growth pits or stacking faults are formed on surface B (111), but penetration twins appear at low temperatures (640C) and truncated and complete pyramids are formed at 700 - 750C. When the GaAs source is at 1000C and the substrates at 640C, the iodine partial pressure is 2, 26 x 10-3 mm Hg and the

UDC: 546,681'191



1 15968-66 ENT(m)/T/ENP(t)/ENP(b) IJP(c) JD/JG SOURCE CODE: UR/2564/65/006/000/0388/0392 ACC NR: AT6002273 AUTHOR: Magomedov, Kh. A.; Sheftal', N.N. ORG: none TITLE: Growing of epitaxial gallium arsenide films. (Paper presented at the Thir Conference on Crystal Growing held in Moscow from 18 to 25 November, 1963.) SOURCE: AN SSSR. Institut kristallografii. Rost kristallov, v. 6, 1965, 388-392 TOPIC TAGS: epitaxial growing, gallium arsenide ABSTRACT: The article describes the apparatus and method developed for preparing epitaxial gallium arsenide films by the open hydrogen-iodide method. In this method, a stream of hydrogen carries iodine vapor, which encounters gallium arsenide in the hightemperature zone and reacts as follows:  $2GaAs + J_{1} = 2GaJ + \frac{1}{2}As_{4}$ The reaction products are carried to a cooler zone, where the second reaction occurs on the surface of a substrate: 2GaAs + GaJ, ⇒ 3GaJ + As. Card 1/2



## L 19861-65 ACCURSTON MAR AP5000292 Experiments were carried out in a three-zone furnace with individual temp rature control in each zone. The source (in zone 2) was n-type Galle single crystals. The substrate (in zone 3) was chemically etched, weighed, and gas etched in an iodine vapor stream. The epitaxial films had the same conductivity type and resistivity as the source. Microinterferometric, micrographic, and electronographic investigations indicated that the deposition rate and morphology of epitaxial films on (111) A and (111) B planes depend mainly on substrate temperature (in the 550-7000 range), iodine partial pressure (in the source (in the 0.7-8.2 mm Hg range), and hydrogen flow rate near the source (in the 5-30 cm/sec range). Optimum conditions were established for a singlecrystal deposit on the (111) plane, without geometrical surface patterns. Polycrystalline layers were observed on both planes or the substrate at certain temperatures and at iodine partial pressure. Various geometrical patterns including twins were always present on (III) B surfaces. The maximum deposition rate was 90 µ/hr - on the (III) A plane. Orig. art. has: 8 figures and 2 formulas. Institut kristallografil AN SSSR (Institute of Crys-CHILOGY BODDY SAW BEER Card 2/3

D 10641-69 MEG(8)-2 PAME(1)/ENT(8)/ENP(b)/T/ENP(c) TJP(c)/MAME(a)/APML/ASD(a)-5/RIGSTSTOM RN: AT 000292 MED(40)/MED(40

ACC NR: AP7002930

is a local Cartesian system;  $F_{i} = F_{i}$  ( $\beta$ ,  $\gamma$ , r), Q = Q(P, S),  $Q_{i} = Q_{i}$  (P, S),  $R_{i} = R_{i}$  is the derivative in the direction of the vector  $R_{i}$ . The remainder of the article is is the derivative and solution of the problem on the above premises. The paper devoted to a mathematical solution of the problem on the above premises. The paper was presented by Academician Dorodnitsyn, A. A. on 6 March 1966. Orig. art. has: 13 formulas and 2 figures.

SUB CODE: 20/ SUBM DATE: 28Feb66/ QRIG REF: 007/ OTH REF: 001

ACC NR: AP7002930

SOURCE CODE: UR/0020/66/171/006/1297/1300

AUTHOR: Magomodov, K. M.

CRG: Moscow Physicotechnical Institute (Moskovskiy fiziko-tekhnicheskiy institut)

TITIE: Calculation of surfaces by space method characteristics

SOURCE: AN SSSR. Doklady, v. 171, no. 6, 1966, 1297-1300

TOPIC TAGS: gas dynamics, aerodynamic characteristic, aerodynamic boundary layer, mathematic analysis

ABSTRACT: The article demonstrates mathematically that in different schemes for finding the points of the required boundary surfaces (shock wave, free surface), it is necessary and sufficient to make use of a single combination of the differential equations of gas dynamics. It assumes the equations for the steady-state supersonic movement of an ideal gas in the form:

an ideal gas in one form
$$\cos \gamma k_2 \nabla \beta + k_3 \nabla \gamma + Q_1 k_1 \nabla p = F_1, \quad \cos \gamma k_1 \nabla \beta + Q k_2 \nabla p = F_2,$$

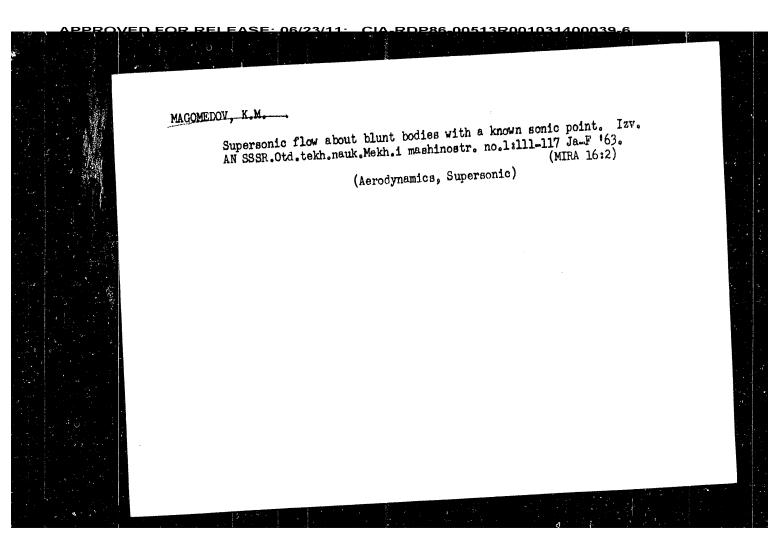
$$k_1 \nabla \gamma + Q k_3 \nabla p = F_3, \quad k_1 \nabla S = 0,$$
(1)

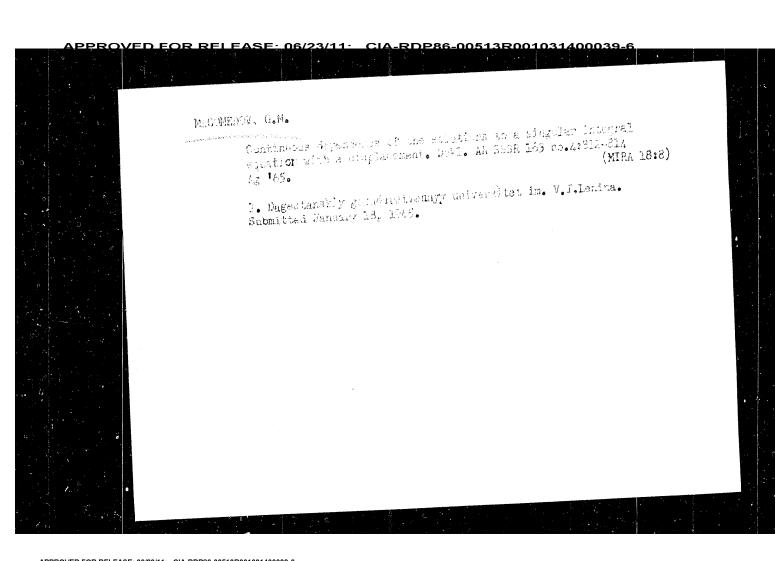
where the velocity vector in cylindrical coordinates z, r,  $\phi$  is taken in accordance with the relationship  $V = V(\cos \beta \cos \gamma, \sin \beta \cos \gamma, \sin \gamma)$ ;  $k_i = V/V$ ,

 $k_2 = \cos^{-1}\gamma \, \partial k_1 / \partial \beta, \ k_3 = \partial k_1 / \partial \gamma$ 

Card 1/2

UDC: 533.6.011.3/5





drops in the sequence  $-0C_2H_5 > -0C_3H_7\pi$ .  $> -0CH_2-CH=CH_2 > -0CH_3 > -0C_4H_5$ .

2[2-(Ethoxy)-5-hexen-3-ynyl]cyclopentadienyltricarbonylmanganese improves the octane rating by two numbers of company of the comp L 10644-66 rating by two numbers as compared with CTM. 4) Introduction of acyl or benzayl groups into the CTM molecule lowers its antiknock effectiveness. Orig. art. has:

[BC]

[BC]

[BC] SUBM DATE: 12Nov64/ ORIG REF: 003/ OTH REF: 002/ ATD PRESS: SUB CODE: 21/

UR/0204/65/005/006/0892/089-EWT (m)/T WE/RM AP6002075 SOURCE CODE: 10644-66 44,51 ACC NRI Zaytsev, AUTHOR; Poretakaya, A. P.; Ma Nesmeyanov, Magomedov, G. K. 44153 ORG: Institute of Heterorganic Compounds AN SSSR (Institut elementoorganicheskikh Ssoyedineniy AN SSSR) TITLE: Antiknock effectiveness of certain organomanganese compounds SOURCE: Neftekhimiya, v. 5, no. 6, 1965, 892-896 TOPIC TAGS: antiknock compound, organomanganese compound, fuel additive ABSTRACT: The antiknock effectiveness of manganese carbonyl (MC) and of cyclopentadienyltricarbonylmanganese 7(CTM) derivatives was compared with that of CTM and tetraethyllead (TEL). The effectiveness of the individual organomanganese compounds in different concentrations was studied in various fuels by the standard motor method for determining the octane number. It was shown that for a given metal content in the fuel: 1) the antiknock effectiveness of MC in comparison with that of CTM and TEL is as follows: a) In automotive gasolines //A-66 and A-72, lower; b) in a mixture of isooctane (60%) and heptane (40%), nearly the same; c) in the aviation gasoline// B-95/130, lower. 2) The antiknock effectiveness of MC-CTM mixture in B-95/130 gasoline is equal to that of CTM. 3) The antiknock effectiveness of 2[2-(alkoxy)-5he xer-3-ynyl]cyclopentadienyltricarbonylmanganeses depends on the alkoxy group and 1/2

